



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE
AND TECHNOLOGY**

UNIVERSITY EXAMINATIONS 2012/2013

**2ND YEAR 2ND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF BSC. PUBLIC HEALTH**

(KISII LEARNING CENTRE)

COURSE CODE: HPD 3223

COURSE TITLE: DISEASE SURVEILLANCE AND OUTBREAK
INVESTIGATION

DATE: 17 /4/2013

TIME: 9.00-11.00AM

DURATION: 1.5 HOURS

INSTRUCTIONS

1. This paper contains TWO sections.
2. Answer ALL questions in section A (Compulsory) and ANY other Two questions in section B.
3. Write all answers in the booklet provided

- 1a) Distinguish between active and passive surveillance (4 marks)
- b) Explain the importance of surveillance information (8marks)
- c) Explain any FIVE limitations of survey as a source of surveillance data (10 marks)

2. a) State two advantages and five disadvantages of passive surveillance (7 marks)

b) In a particular community, 115 persons in a population of 4,399 became ill with a disease of unknown etiology. The 115 cases occurred in 77 households. The total number of persons living in these 77 households was 424.

- i) Calculate the overall attack rate in the community. (2marks)
- ii) Calculate the secondary attack rate in the affected households, assuming that only one case per household was a primary (community-acquired) case. (2marks)

c) Differentiate between single and multiple exposure (2 marks)

d) State four fundamental principles of disease surveillance (4 marks)

e) State three advantages of active surveillance (3 marks)

3 a) Define the following terms (10 marks)

Endemic

Epidemic

Pandemic

Hyperendemic

Holoendemic

b) State three objectives of an outbreak investigation. (3marks)

c) By giving examples of relevant situations, describe the two strategies used in disease surveillance (4 marks)

d) State three disadvantages of the use of physician's records as a source of surveillance data. (3marks)

4. Explain the reasons for which one would collate surveillance information (2x10marks)

5. You have just been employed and posted to a new work station prone to disease outbreak. Describe the procedure you would follow to investigate an outbreak of a strange disease in your area of jurisdiction. (20 marks)